WASHINGTON STATE
Office *of* Marine Safety

Publication #00-08-003
Revision March 2000

SAFETY ADVISORY BULLETIN 96-01

OMS is now part of the Washington State Department of Ecology's Spill Prevention, Preparedness, and Response Program

SHIFTING A SHIP BY WARPING

In April 1996, the Master of a 70,114 deadweight ton bulk cargo ship attempted to shift the ship some 40 meters aft in order to complete the loading of grain in a forward hatch. The vessel was pointed upstream. All three head lines on the vessel were led to a deadman on shore in such a way that when the Master called for a head line to be shifted aft to another position he was informed that all three would have to be let go simultaneously.

All three head lines were let go at the same time. The ship's engines were not on stand-by nor was tug assistance requested. Due to the Columbia River current and a moderate breeze setting the vessel off the berth, the bow of the ship swung into the stream. The remaining lines payed-out or parted, and, despite letting go both anchors, the ship drifted downstream and grounded. Damage to the ship's rudder was extensive, requiring the services of a shipyard.

Shifting the ship alongside a berth using lines (warping) is a normal evolution for a ship's crew, especially for ships in the dry bulk trade. However, the head lines in this case were secured to a deadman with a pelican hook through the mooring line eyes. This necessitated that all three lines be let go simultaneously to shift them. The current on the Columbia River was especially strong (approximately 6 knots) due to high river levels, and the ship was at an open dock. These special circumstances called for reconsideration of the 'normal' evolution.

This incident presents an opportunity for ship operators to examine their procedures for mooring and warping. The following should be considered by ships' Masters prior to every shifting evolution:

- Is there anything unusual about the mooring arrangement? A first-hand inspection of how the lines are made fast to shore, of the dock construction and of the shore contour following arrival should reveal any unusual arrangements. This is especially true for large vessels that might need infrequently-used shoreside mooring points.
- What are the environmental conditions of the location? Some of these may be observed during the inbound transit. Average seasonal conditions are available from the U.S. Coast Pilot, Sailing Directions and Pilot Charts. A question to the state pilot, an expert on local conditions, might yield additional, more specific information on unseasonable conditions such as unusually high river levels, and unusual winds and currents.
- What precautions are appropriate given the specific circumstances? An informed plan for line handling and having main engines on stand-by are basic insurance against mishaps. If the conditions warrant, the services of a pilot or a tug should also be retained.

Ship operators can assist by requiring that a berthing log, describing each facility at which a vessel berths, be maintained by their ship masters. Facility descriptions can be distributed to other vessels in the operator's fleet. Descriptions should be updated whenever a vessel revisits a facility. Ship operators should also encourage the use of the Ship/Shore Safety Checklist available from the International Chamber of Shipping (ICS), part of which addresses mooring arrangement adequacy.

Facility operators can assist by working with the vessels to complete the ICS Ship/Shore Safety Checklist, and by providing visiting ship Masters with a diagram of the facility that includes the location and type of shoreside mooring points.